

REMARKS/ARGUMENTS

Claims 15-28 are pending in this application. By this Amendment, Applicant amends Claim 15.

Claims 18-25 have been withdrawn from further consideration because these claims are directed to non-elected species. Claims 18-25 are dependent upon generic Claim 15. Accordingly, Applicant respectfully requests that the Examiner rejoin and allow Claims 18-25 when generic Claim 15 is allowed.

Claims 15-17 and 28 were rejected under 35 U.S.C. § 102(b) as being anticipated by Furumoto et al. (JP 2004-254037). Claims 26 and 27 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Furumoto et al. in view of Takehara et al. (U.S. 6,815,810). Applicant respectfully traverses the rejections of Claims 15-17 and 26-28.

Claim 15 has been amended to recite:

A composite ceramic substrate comprising:
a ceramic substrate including a surface-mounted component mounted thereon;
at least one wiring pattern disposed in the ceramic substrate;
at least one external terminal electrode connecting the at least one wiring pattern to a surface electrode of a motherboard;
at least one convex leg portion made of resin and arranged on the ceramic substrate such that a first end surface of the at least one convex leg portion supports the at least one external terminal electrode and a second end surface of the at least one convex leg portion opposite to the first end surface is in direct contact with and directly connected to the ceramic substrate; and
a via-hole conductor provided in the at least one convex leg portion and connecting the at least one external terminal electrode to the at least one wiring pattern. (emphasis added)

The Examiner alleged that Furumoto et al. teaches all of the features recited in Applicant's Claim 15, including the features of a ceramic substrate 2, at least one convex leg portion 3, and a via-hole conductor 9 in the at least one convex leg portion 3.

Applicant's Claim 15 has been amended to recite the feature of "at least one convex leg portion made of resin and arranged on the ceramic substrate such that a first

end surface of the at least one convex leg portion supports the at least one external terminal electrode and a second end surface of the at least one convex leg portion opposite to the first end surface is in direct contact with and directly connected to the ceramic substrate.” Support for this feature is found, for example, in paragraphs [0044] and [0062] of Applicant’s originally filed Substitute Specification and in Figs. 1A to 3B of Applicant’s originally filed drawings.

In contrast, Furumoto et al. teaches that the frame 3, which the Examiner alleged corresponds to the at least one convex leg portion recited in Applicant’s Claim 15, is attached to the insulating substrate 2, which the Examiner alleged corresponds to the ceramic substrate recited in Applicant’s Claim 15, via a brazing material 10 (see, for example, the English language Abstract of Furumoto et al. and paragraph and [0033] of the English machine translation of Furumoto et al.). Thus, the frame 3 of Furumoto et al. is neither in direct contact with nor directly adhered to the insulating substrate 2.

Thus, Furumoto et al. certainly fails to teach or suggest the feature of “at least one convex leg portion made of resin and arranged on the ceramic substrate such that a first end surface of the at least one convex leg portion supports the at least one external terminal electrode and a second end surface of the at least one convex leg portion opposite to the first end surface is in direct contact with and directly connected to the ceramic substrate” as recited in Applicant’s Claim 15.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection of Claim 15 under 35 U.S.C. § 102(b) as being anticipated by Furumoto et al.

In addition, Applicant respectfully submits that it would not have been obvious to modify the device of Furumoto et al. such that an end of the frame 3 is in direct contact with and directly adhered to the insulating substrate 2.

Paragraph [0033] of the machine translation of Furumoto et al. discloses that the brazing material 10 is provided as a joining material to connect the insulating substrate 2 and the frame 3 to one another so as to compensate for height variations of the frame 3 and to improve the surface smoothness of the undersurface of the frame 3.

If the device of Furumoto et al. was modified such that an end of the frame 3 is in direct contact with and directly adhered to the insulating substrate 2, that is, if the brazing material 10 was not used to connect the frame 3 to the insulating substrate 2, then the connection between the frame 3 and the insulating substrate 2 of Furumoto et al. would be unsatisfactory for its intended purpose of compensating for height variations of the frame 3 and improving the surface smoothness of the undersurface of the frame 3, both of which are provided by the brazing material 10.

The Examiner is reminded that if the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. In re Gordon, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984) and MPEP § 2143.01.

The Examiner relied upon Takehara et al. to allegedly cure deficiencies of Furumoto et al. However, Takehara et al. fails to teach or suggest the feature of “at least one convex leg portion made of resin and arranged on the ceramic substrate such that a first end surface of the at least one convex leg portion supports the at least one external terminal electrode and a second end surface of the at least one convex leg portion opposite to the first end surface is in direct contact with and directly connected to the ceramic substrate” as recited in Applicant’s Claim 15. Therefore, Takehara et al. fails to cure the deficiencies of Furumoto et al. described above.

Accordingly, Applicant respectfully submits that Furumoto et al. and Takehara et al., applied alone or in combination, fail to teach or suggest the unique combination and arrangement of features recited in Applicant’s Claim 15.

In view of the foregoing amendments and remarks, Applicant respectfully submits that Claim 15 is allowable. Claims 16, 17, and 26-28 depend upon Claim 15, and are therefore allowable for at least the reasons that Claim 15 is allowable. In addition, Applicant respectfully requests that the Examiner rejoin and allow non-elected Claims 18-25, which are dependent upon generic Claim 15.

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In view of the foregoing amendments and remarks, Applicant respectfully submits that this application is in condition for allowance. Favorable consideration and prompt allowance are solicited.

The Commissioner is authorized to charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-1353.

Respectfully submitted,

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